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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,225	12/13/2001	Freeman Leigh Rawson III	AUS920010796US1	6315
47959	7590	09/06/2006	EXAMINER	
IBM CORP. (AVE) C/O LAW OFFICE OF ANTHONY ENGLAND PO BOX 5307 AUSTIN, TX 78763-5307			CHANG, ERIC	
			ART UNIT	PAPER NUMBER
			2116	

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/015,225	Applicant(s) RAWSON, FREEMAN LEIGH	
	Examiner Eric Chang	Art Unit 2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-24 are pending.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because of undue length. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claims 1-24 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,711,691 to Howard et al.

6. As to claim 1, Howard discloses a method of conserving power consumption in a multi-processor data processing system, comprising: monitoring a workload of the system [12]; determining a number of processors required to process the monitored workload at a predetermined performance criterion [col. 4, lines 33-58]; activating or deactivating processors to conform the number of active processors in the system to the determined number of processors [16, 20]; and processing the workload with the active processors while maintaining the deactivated processors in a reduced power state [col. 4, lines 33-58].

7. As to claim 2, Howard discloses determining the number of processors required comprises determining the minimum number of processors required to achieve the performance criterion [col. 4, lines 33-58].

8. As to claim 3, Howard discloses deactivating a processor includes selecting a processor for deactivation based on the processor's workload [col. 9, lines 51-60].

9. As to claim 4, Howard discloses deactivating a processor includes migrating processes pending on a processor selected for deactivation to another processor [502].

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10. As to claim 5, Howard discloses deactivating a processor further includes flushing the processor's cache memory before deactivating the processor [506].

11. As to claim 6, Howard discloses deactivating a processor comprises transitioning a processor to the lowest power state supported by the processor [col. 8, lines 59-62].

12. As to claim 7, Howard discloses monitoring the workload comprises determining the demand for CPU cycles [col. 4, lines 33-58].

13. As to claim 8, Howard discloses monitoring the workload includes determining the instantaneous workload periodically and averaging the instantaneous workload data to obtain an average workload [col. 4, lines 59-64].

14. As to claim 9, Howard discloses a data processing system including processor, memory, and I/O means, the system including a sequence of processor executable instructions for conserving power, the instructions being stored on a computer readable medium, comprising: computer code means for monitoring a workload of the system [12]; computer code means for determining a number of processors required to process the monitored workload at a predetermined performance criterion [col. 4, lines 33-58]; computer code means for activating or deactivating processors to conform the number of active processors in the system to the determined number of processors [16, 20]; and computer code means for processing the

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workload with the active processors while maintaining the deactivated processors in a reduced power state [col. 4, lines 33-58].

15. As to claim 10, Howard discloses determining the number of processors required comprises code means for determining the minimum number of processors required to achieve the performance criterion [col. 4, lines 33-58].

16. As to claim 11, Howard discloses deactivating a processor includes code means for selecting a processor for deactivation based on the processor's workload [col. 9, lines 51-60].

17. As to claim 12, Howard discloses deactivating a processor includes code means for migrating processes pending on a processor selected for deactivation to another processor [502].

18. As to claim 13, Howard discloses deactivating a processor further includes code means for flushing the processor's cache memory before deactivating the processor [506].

19. As to claim 14, Howard discloses deactivating a processor comprises code means for transitioning a processor to the lowest power state supported by the processor [col. 8, lines 59-62].

20. As to claim 15, Howard discloses monitoring the workload comprises code means for determining the demand for CPU cycles [col. 4, lines 33-58].

21. As to claim 16, Howard discloses monitoring the workload includes code means for determining the instantaneous workload periodically and averaging the instantaneous workload data to obtain an average workload [col. 4, lines 59-64].

22. As to claim 17, Howard discloses a computer program product comprising a sequence of processor executable instructions for conserving power, the instructions being stored on a computer readable medium, comprising: computer code means for monitoring a workload of the system [12]; computer code means for determining a number of processors required to process the monitored workload at a predetermined performance criterion [col. 4, lines 33-58]; computer code means for activating or deactivating processors to conform the number of active processors in the system to the determined number of processors [16, 20]; and computer code means for processing the workload with the active processors while maintaining the deactivated processors in a reduced power state [col. 4, lines 33-58].

23. As to claim 18, Howard discloses determining the number of processors required comprises code means for determining the minimum number of processors required to achieve the performance criterion [col. 4, lines 33-58].

24. As to claim 19, Howard discloses deactivating a processor includes code means for selecting a processor for deactivation based on the processor's workload [col. 9, lines 51-60].

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25. As to claim 20, Howard discloses deactivating a processor includes code means for migrating processes pending on a processor selected for deactivation to another processor [502].

26. As to claim 21, Howard discloses deactivating a processor further includes code means for flushing the processor's cache memory before deactivating the processor [506].

27. As to claim 22, Howard discloses deactivating a processor comprises code means for transitioning a processor to the lowest power state supported by the processor [col. 8, lines 59-62].

28. As to claim 23, Howard discloses monitoring the workload comprises code means for determining the demand for CPU cycles [col. 4, lines 33-58].

29. As to claim 24, Howard discloses monitoring the workload includes code means for determining the instantaneous workload periodically and averaging the instantaneous workload data to obtain an average workload [col. 4, lines 59-64].

Conclusion

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Chang whose telephone number is (571) 272-3671. The examiner can normally be reached on M-F 9:00-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 17, 2006

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